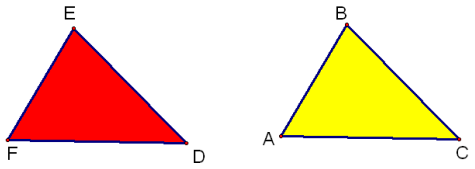
5.1 Congruence and Triangles

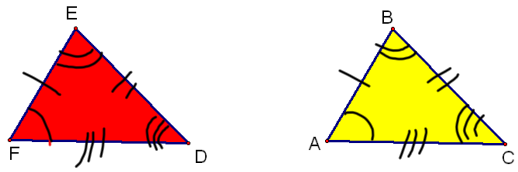
Figures are **congruent** if all of the corresponding angles and corresponding sides are congruent. (Same size and shape)



$\Delta ABC \cong \Delta FED$

$\angle A \cong \angle F$
$\angle B \cong \angle E$
$\angle C \cong \angle D$

$AB = FE$
$BC = ED$
$AC = FD$



$\Delta ABC \cong \Delta FED$

Other ways to name the triangles:

$\Delta BCA \cong \Delta EDF$

$\Delta CAB \cong \Delta DFE$

$\Delta ACB \cong \Delta FDE$

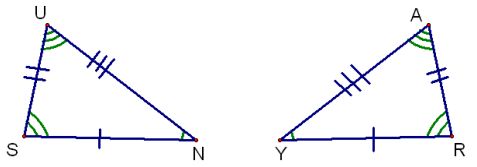
If $\Delta DUB \cong \Delta LIN$, then

$\angle D \cong \angle L$ $DU = LI$

$\angle U \cong \angle I$ $UB = IN$

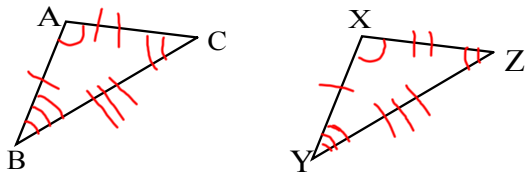
$\angle B \cong \angle N$ $DB = LN$

Identify all the congruent parts.
Write a congruence statement.

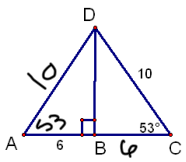


$\angle S \cong \angle R$ $SU = RA$ $\triangle SUN \cong \triangle RAY$
$\angle U \cong \angle A$ $UN = AY$
$\angle N \cong \angle Y$ $SN = RY$

Mark the triangles. (All 6 parts)
$\triangle ABC \cong \triangle XYZ$



$\triangle ABD \cong \triangle$ CBD
BC = 6
AD = 10
$m\angle A$ = 53
$m\angle DBC$ = 90



HW

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